Allotment Evaluation (AE)
For
Cerrito Negro (#648)

Permittee		Authorization Number 3001146		
Livestock Use	Preference AUMs	Allotment 00648	Active 282	Suspended 399
	Period of Use	Allotment Cerrito Negro	Kind 600 Cattle	Season of Use 10/01 - 10/28
	Kind of Livestock	Cow Calf		
	Percent Public Land	AUMs are authorized at 51% public land		
Allotment Profile	Physical Description	Allotment 648 is located approximately 10 miles northeast of Tres Piedras, NM, in Taos County, New Mexico. Elevation on this allotment is roughly between 7,700 and 8,300 feet. Landforms on the allotment include; uplands cinder cones and draws. Portions of this allotment are within the San Antonio Special Management Area. Thirteen soil types are identified within the BLM lands in this allotment. They include: Fernando cobbly loam, 1 to 7 percent slope. The soil consists of loams, with rooting depths over 60 inches. Parent materials of mixed alluvium comprise this soil. Average annual precipitation ranges between 10 and 14 inches. Hazard for water erosion is slight to moderate. Vegetation is characterized by western wheat, galleta, blue grama, squirreltail and sagebrush. Fernando-Hernandez association, nearly level. The soil consists of loam and clay loams, with rooting depths over 60 inches. Parent materials of alluvium derived from mixed sources comprise this soil. Average annual precipitation ranges between 10 and 14 inches. Hazard for water erosion is moderate. Vegetation is characterized by western wheat, galleta, blue grama, winter fat, fourwing saltbush and sagebrush. Hernandez-Petaca association, gently sloping. The soil consists of loams, with rooting depths over 60 inches. Parent materials of alluvium derived from mixed sources comprise this soil. Average annual precipitation ranges between 10 and 14 inches. Hazard for water erosion is moderate. Vegetation is characterized by western wheat, needle and thread, galleta, blue grama and sagebrush. Luhon-Travelers complex, 3 to 7 percent slopes. These soils consist of loams, with rooting depths between 20 to 60 inches.		

		Parent material of residuum of basalt and eolian sediments comprise these soils. Average annual precipitation in this area ranges from 10 to 12 inches. Hazard for water erosion is moderate. Vegetation is characterized by western wheat, Indian ricegrass, and winter fat. Manzano clay loam, 0 to 5 percent slopes. This soil consists of clays loams, with rooting depths over 60 inches. Parent material of mixed alluvium comprises this soil. Average annual precipitation in this area ranges from 12 to 14 inches. Hazard for water erosion is slight to moderate. Vegetation is characterized by western wheat, blue grama, galleta, sideoats grama and sagebrush. Orejas-Montecito association, strongly sloping. The soil consists of loams, with rooting depths between 20 and over 60 inches. Parent materials of weathered basalt and eolian materials comprise this soil. Average annual precipitation ranges between 13 and 15 inches. Hazard for water erosion is moderate. Vegetation is characterized by pinyon, juniper, sideoats grama, sagebrush muttongrass and blue grama. Petaca-Silva association, gently sloping. The soil consists of loams, with rooting depths between 20 to over 60 inches. Parent materials of weathered basalt and eolian materials comprise this soil. Average annual precipitation ranges between 10 and 14 inches. Hazard for water erosion is moderate. Vegetation is characterized by western wheat, blue grama and sagebrush. Raton-Stunner association, moderately steep. These soils consist of stony/cobbly loams, with rooting depths between 20 to over 60 inches. Parent material of gravelly and cobbly material weathered from basalt and eolian sediment comprises this soil. Average annual precipitation in this area ranges from 14 to 16 inches. Hazard for water erosion is moderate to high. Vegetation is characterized by squirreltail, western wheat, blue grama, sagebrush and winter fat. Rock outcrop-Raton complex, moderately steep. These soils consist of stony silt loams, with rooting depths up to 20 inches. Parent material of basalt residuum and mixed eolian sediment comprise these soils. Average annual precipitation in this complex ranges from 14 to 16 inches. Hazard for water erosion is sight to moderate. Vegetation is characterized by pinyon, juniper, muttongrass, Arizona fescue and western wheat. Shawa clay loam, 0 to 3 percent slopes. This soil consists of clay loams with rooting depths over 60 inches. Parent materials of alluvium on playa bottoms comprise this soil. Average annual precipitation in this complex ranges from 10 to 12 inches.

<table>
<tr><td></td><td></td><td>Hazard for water erosion is slight. Vegetation is characterized by blue grama, western wheat and fourwing saltbush.

Stunner-Luhon association, gently sloping. These soils consist of loams, with rooting depths over 60 inches. Parent material of mixed alluvium and eolian sediment comprises this soil. Average annual precipitation in this area ranges from 10 to 12 inches. Hazard for water erosion is moderate. Vegetation is characterized by western wheat, blue grama, threeawn and rabbitbrush.

Stunner-Travelers association, gently sloping. These soils consist of stony loams, with rooting depths between 20 and over 60 inches. Parent material of mixed alluvium, residuum of basalt and eolian sediment comprises this soil. Average annual precipitation in this area ranges from 10 to 12 inches. Hazard for water erosion is slight. Vegetation is characterized by western wheat, blue grama, threeawn and winter fat.

Travelers very stony loam, 1 to 8 percent slope. This soil consists of very stony loams, with rooting depths up to 20 inches. Parent material formed of residuum and eolian material on basalt flows comprises this soil. Average annual precipitation in this area ranges from 10 to 12 inches. Hazard for water erosion is slight to moderate. Vegetation is characterized by western wheat, blue grama, rabbitbrush and winter fat.</td></tr>
<tr><td></td><td>Land Status
Acreage</td><td><u>BLM</u> <u>State</u> <u>Private</u>
6,512 5,222 1,127</td></tr>
<tr><td></td><td>Management Objectives</td><td>The allotment is under an ‘Improve’ (‘I’) management category. ‘I’ category allotments are managed in accordance with the Allotment Management Plan to achieve satisfactory ecological condition.</td></tr>
<tr><td></td><td>Key Forage Species</td><td>western wheat, blue grama, Indian ricegrass, needleandthread, Arizona fescue and winter fat</td></tr>
<tr><td></td><td>Grazing System</td><td>Dormant season</td></tr>
<tr><td>Management Evaluation</td><td>Actual Use</td><td><table><tr><th>AUMs</th><th>Year</th></tr><tr><td>non-use</td><td>2008</td></tr><tr><td>non-use</td><td>2007</td></tr><tr><td>282</td><td>2006</td></tr><tr><td>282</td><td>2005</td></tr><tr><td>non-use</td><td>2004</td></tr><tr><td>non-use</td><td>2003</td></tr><tr><td>non-use</td><td>2002</td></tr><tr><td>non-use</td><td>2001</td></tr><tr><td>non-use</td><td>2000</td></tr><tr><td>non-use</td><td>1999</td></tr></table></td></tr>
<tr><td></td><td>Utilization</td><td>Due to the lack of staff utilization studies have not been conducted, but based on the allotment visit it appears that the allotment has not been grazed in a number of years.</td></tr>
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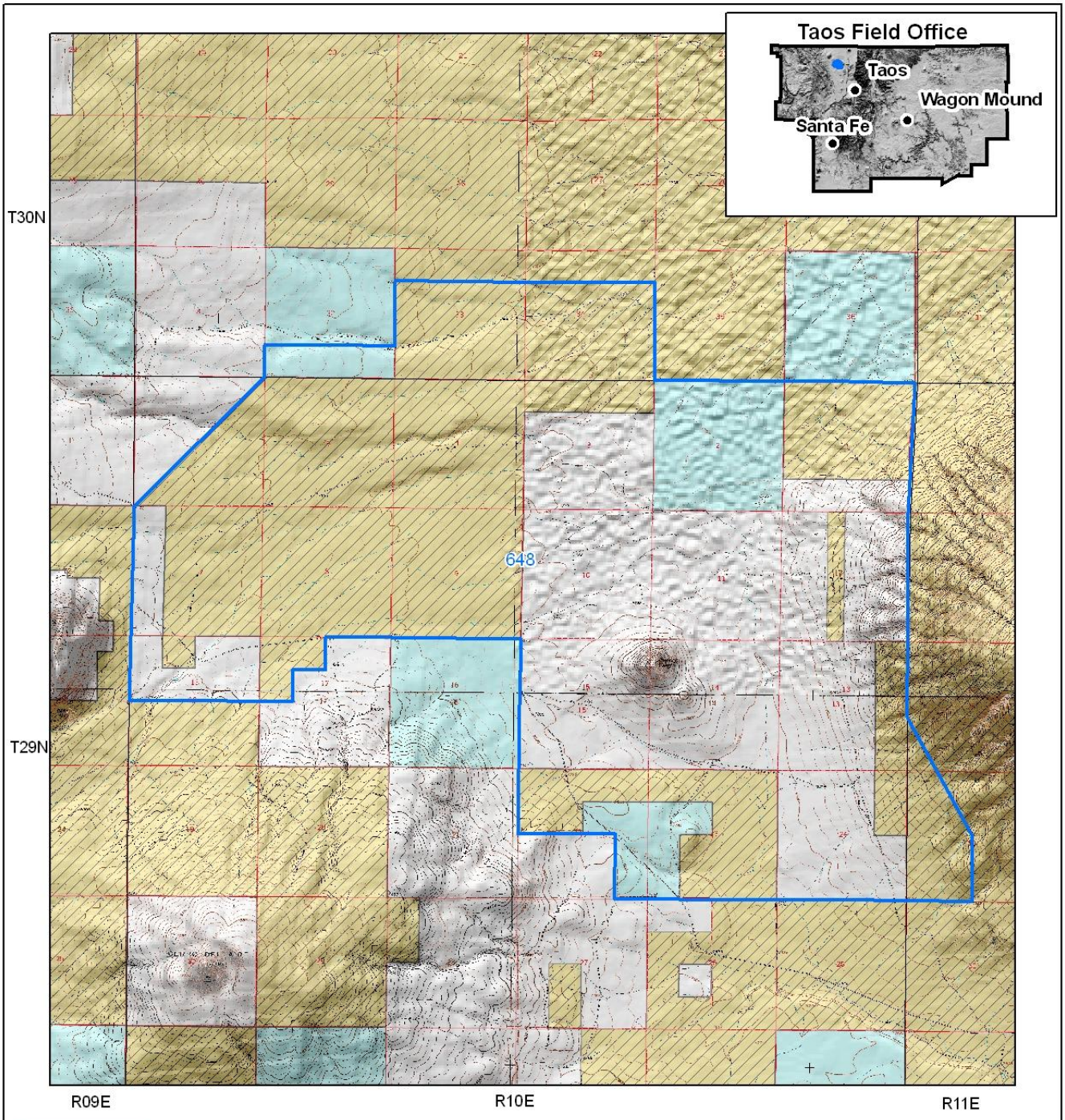
	Climate	The past water year (Oct. 1, 2008 – Sept. 30, 2009) the average temperature has been slightly above average (1 to 2 degrees Fahrenheit above average) and precipitation has been slightly above average (0 to 2 inches). The winter was wetter (0 - .75 above normal) and the spring was slightly drier (0 - .5 inches below normal) and warmer (3 - 4 and 2 - 4 degrees Fahrenheit above average, respectively) This should provide average plant growth for cool season plants. The summer was drier (0 - 1.5 below normal) and slightly cooler (0 - 1 below normal) which should provide near normal for warm season plants. Climate change is a concern not only in New Mexico but globally. "Effects of increasing atmospheric CO_2 levels on plants are predicted to cause dramatic changes in native vegetation. Global climate change may accelerate rates of plant extinction, while ecosystem structure and function may shift. Ecological response to global changes in climate could shift ecosystems (i.e., shrublands replacing grasslands) and have effects, not only to an individual species, but to the ecosystem itself by additions and deletions of vegetation species" (Johnson, H.B., and H.S. Mayeux. 1992. Viewpoint: A view on species additions and deletions and the balance of nature. Journal of Wildlife Management 45:322-333.) We anticipate that our monitoring efforts will help indicate vegetation shifts, allowing for management modifications to address global climate change.
	Trend	Three long term trend plots have been established on this allotment. They were established in 1984 and 1990. Two were found and re-read in 2009. Trend appears to suggest increased vegetative cover, but mostly in the category of shrubs or small trees. A Rangeland Health Matrix was completed on September 25, 2009. The actual survey forms are available within the allotment file. Below is a summation of the information gathered by the survey. Within the Rangeland Health Attributes are three different categories of indicators. The categories include; Soil and Site Stability, Hydrologic Function and Biotic Integrity. The percent of indicator score was created by multiplying an assigned value for departure from site descriptions/reference areas by the number of indicators at the level. Departure scores are categorized as: none to slight = 5, slight to moderate = 4, moderate = 3, moderate to extreme = 2 and extreme = 1. For example, if all indicators under Soil/Site Stability were rated none to slight (best condition), the equation would be 5(score)*10indicators=50/50*100 = 100% similarity, or what is expected based on an Ecological Site Description. Standards for each individual category are met when they are rated Proper

		Functioning Condition or Functioning at Risk-Upward Trend. Not meeting standards are ratings of; Functioning at Risk-Static, Functioning at Risk-Downward Trend and Non Functional. Soil and Site Stability Two indicators were deemed None to Slight, five were deemed Slight to Moderate and three were deemed Moderate. Rating: 78% Hydrologic Function Three indicators were deemed None to Slight, five were deemed Slight to Moderate and two were deemed Moderate. Rating: 80% Biotic Integrity Five indicators were deemed None to Slight, one was deemed Slight to Moderate and three were deemed Moderate. Rating: 84% Overall Rating: 81% Soils were rated at Functioning at Risk-Static, Biotic Flora was rated at Functioning at Risk-Static, and Biotic Fauna was rated at Proper Functioning Condition. Livestock grazing does not appear to be adversely affecting this allotment. In fact, grazing has not been occurring on the allotment.
	Riparian	No riparian vegetation is found on BLM administrated land on this allotment.
	Wildlife	Seasonal home ranges in the allotment include those for deer, elk, antelope, mountain lion, black bear, bobcat, fox, coyote, small mammals, bats, raptors, turkey vulture, songbirds, and a variety of insects. With the introduction of bighorn sheep in the Rio Grande gorge, it is possible that they could frequent the allotment. Elk, deer and antelope are grazers, however there is little dietary overlap between deer and cattle. Best management practices (rotational grazing; enhancement of cool season grasses, Indian ricegrass and winterfat; and promotion of a mixed-aged sagebrush community) would ensure that forage production within this area can support both wildlife and livestock on a sustained basis. Critical wildlife areas on the allotment include winter range for elk and deer. An important migratory corridor for avian and big-game species also occurs inside the allotment boundaries.
	Threatened and	It has been determined that no other federally listed threatened

	Endangered Species	or endangered species likely to be found in the subject allotment. Special status species that are likely to be found on the allotment include prairie dogs, burrowing owl, mountain plover and ferruginous hawk.
Conclusions and Recommendations		Overall, the vegetation appears to be in good condition with good diversity, although there are areas that sagebrush dominance and piñon/juniper expansion is causing graminoid and forb density and diversity to decrease. The monitoring transects appear to be on the downward or static trend. Continued monitoring will help establish any possible changes in the future. It is recommended that grazing be renewed for another 10 years without any changes to the permit.



Cerrito Negro (648)

0 0.3 0.6 1.2 1.8 2.4 Miles

N
W E
S

Legend

- Allotment Boundary
- Bureau of Land Management
- Private
- State

7.5' Topos: Cerro de la Olla, Las Segita Peaks, Tres Piedras & Tres Piedras NE

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